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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,585	02/23/2004	Michael Long	87181RLO	9644

7590 02/10/2005

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Patent Legal Staff  
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Rochester, NY 14650-2201

EXAMINER
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MEEKS, TIMOTHY HOWARD

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/784,585

Applicant(s)

LONG ET AL.

Examiner

Timothy H. Meeks

Art Unit

1762

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 17-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-25 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>20040223</u> . | 6) <input type="checkbox"/> Other: _____  |

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## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of claims 1-16 in the reply filed on 1/11/05 is acknowledged. The traversal is on the ground(s) that there is no additional work in examining both inventions in that the same classes should be searched. This is not found persuasive because while the search may be somewhat coextensive, the issues involved with determining the patentability of the method claims are different than those involved with determining the patentability of the apparatus claims, hence there is an undue burden to examine both inventions.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4-8, 10, and 13-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Grant et al. (2003/0116091)

Grant et al. explicitly disclose the claimed process at the abstract and paragraphs 9-12, 14, 24, 32, 33, 37, and 44-47. Please note that the metalorganic precursors of Grant are "organic materials".

Claims 1, 2, and 4-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsunashima et al. (5,849,089).

The claimed process is explicitly disclosed at col. 2, lines 5-25, col. 4, lines 1-65 and col. 6, lines 5-43. Please note that TEOS is an "organic material".

Claims 1, 2, 4-7, 10, 11, and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Xu et al. (6,331,211)

The claimed process is explicitly disclosed at col. 2, lines 65-68, col. 3, lines 15-45, col. 7, lines 1-13, col. 9, lines 25-28, col. 10, lines 28-32, and col. 11, lines 36-43. Please note that the monomer materials are provided to the vaporizer in an organic solvent which constitutes providing two organic components to the vaporizer. Furthermore, at least some will inherently deposit on the substrate as it is vaporized and condensed with the monomer.

Claims 1, 4-7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by GB 1,253,124 (GB 124)

GB 124 discloses the claimed process at page 1, lines 65 to page 2, line 25 and figure 1.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grant et al.

The prior art does not explicitly disclose stopping vaporizing when no deposition is occurring. However, because the purpose of vaporization is to provide a vaporized reactant for film deposition, to stop vaporization when no film is being deposited would have been obvious since no reactant is needed in the deposition chamber when deposition is not occurring.

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Claims 3 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xu et al.

The prior art does not explicitly disclose stopping vaporizing when no deposition is occurring. However, because the purpose of vaporization is to provide a vaporized reactant for film deposition, to stop vaporization when no film is being deposited would have been obvious since no reactant is needed in the deposition chamber when deposition is not occurring.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsunashima et al.

The prior art does not explicitly disclose stopping vaporizing when no deposition is occurring. However, because the purpose of vaporization is to provide a vaporized reactant for film deposition, to stop vaporization when no film is being deposited would have been obvious since no reactant is needed in the deposition chamber when deposition is not occurring.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over GB 124

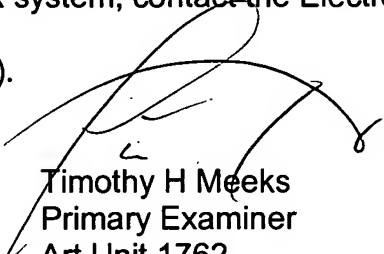
The prior art does not explicitly disclose stopping vaporizing when no deposition is occurring. However, because the purpose of vaporization is to provide a vaporized reactant for film deposition, to stop vaporization when no film is being deposited would have been obvious since no reactant is needed in the deposition chamber when deposition is not occurring.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy H. Meeks whose telephone number is (571) 272-1423. The examiner can normally be reached on Mon 6-6 and Tues-Thurs 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P. Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Timothy H Meeks  
Primary Examiner  
Art Unit 1762